

REMARKS

The indication of allowable subject matter in claims 2-18 is acknowledged and appreciated. In view of the following comments, it is respectfully submitted that all claims are patentable over the cited prior art.

Claims 1 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sakuragi '337 ("Sakuragi") in view of Kudo '931 ("Kudo") and Sanchez et al. '644 ("Sanchez"). This rejection is respectfully traversed for the following reasons.

Claim 1 embodies a device which can output "first brightness information indicating a difference *between the reset voltage and the read voltage* when normal light is incident to the imaging device and the read voltage is in a predetermined range, and replace the first brightness information with second brightness information indicating higher brightness than the first brightness information and then output the second brightness information when strong light is incident to the imaging device and the read voltage is not in the predetermined range" (emphasis added). Claim 19 recites similar features in method format.

The Examiner admits that Sakuragi and Kudo do not disclose such a combination of features, and relies on Sanchez to obviate this deficiency thereof. Specifically, the Examiner admits that Sakuragi does not disclose an output unit operable to output a relative light-strength detecting scheme in relation to normal/strong light, and relies on Kudo in an attempt to obviate this deficiency of Sakuragi. The Examiner then admits that the alleged relative light-strength scheme of Kudo does not replace brightness information with another which indicates a higher brightness. Indeed, at best, Kudo is merely directed to using a reset operation so that there is no reference potential variation when high brightness objects are being imaged. Kudo is completely silent as to replacing brightness information in the manner set forth in the claimed combination,

let alone doing so with second brightness information indicating a higher brightness than the first brightness information.

The Examiner therefore relies on newly cited Sanchez to again modify the output unit of *Kudo* so that it performs the “replacing” operation. As a preliminary matter, it is respectfully submitted that the further reliance of Sanchez would be an improper modification of a modifying reference. Although there is no limit to the number of references that can be used to modify a *primary* reference, it is respectfully submitted that modifying a feature taught in a *secondary* reference (already used to modify the primary reference) is too attenuated from the claimed invention to be considered obvious. In the instant case, the Examiner relies on Sakuragi as the primary reference, and then relies on Kudo as the secondary reference for replacing the output unit of Sakuragi. The Examiner then *again* modifies the output unit of Kudo (i.e., secondary reference). Accordingly, the Examiner has improperly modified a modifying reference, thereby evidencing a lack of obviousness for the claimed *combination*.

Nonetheless, even assuming *arguendo* proper, the proposed combination does not disclose or suggest the claimed combination. Specifically, Sanchez does not disclose brightness information which indicates a difference *between the reset voltage and the read voltage*. Rather, Sanchez merely discloses brightness information which indicates a difference between a pixel’s brightness value and the average brightness value of neighboring pixels to determine whether the pixel is defective (*see* Figure 2 and corresponding description thereof). Sanchez is completely unrelated to the present invention in that the comparison is between the measured brightness of a given pixel relative to the average measured brightness of similarly positioned surrounding pixels.

Sanchez does not disclose comparing brightness between a read and reset voltage in relation to differing strengths of light (normal vs. strong light) as embodied by the present invention. In this regard, it should be noted that Sanchez is directed to identifying defective pixels whereby the comparison of brightness is among the pixels themselves (pixel relative to average of surrounding pixels independent of incident light). In contrast, the present invention can make the comparison relative to the reset voltage and the normal/strong incident light. Indeed, according to one of the objectives of the present invention, the effects of a weaker incident light (e.g., underexposure or shadow detail loss) can be reduced whereas Sanchez's comparison among the pixels would be relatively the same regardless of the strength of the incident light.

To further clarify the distinction between the present invention and cited prior art, claim 1 recites in pertinent part "a signal processing unit that (a) is formed by connecting same circuits corresponding in one-to-one to the columns, (b) processes the signals output in units of columns from the imaging unit, and (c) sequentially outputs the processed signals; and an output unit operable to (a) subject the processed signals, which have been output by the signal processing unit, to necessary conversion, and (b) output the processed signals that have been subjected to the necessary conversion" (claim 19 embodies similar feature).

None of the cited prior art disclose or suggest such features. Indeed, Sanchez is completely silent as to the structural details of its disclosed device, and moreover, would have no disclosed need or desire for such an arrangement. This is because Sanchez is not related to replacing brightness data according to incident light strength. Rather, as noted above, Sanchez replaces brightness data for a defective pixel using an average brightness of surrounding pixels.

The Examiner is directed to MPEP § 2143.03 under the section entitled “All Claim Limitations Must Be Taught or Suggested”, which sets forth the applicable standard for establishing obviousness under § 103:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (citing *In re Royka*, 180 USPQ 580 (CCPA 1974)).

In the instant case, the pending rejection does not “establish *prima facie* obviousness of [the] claimed invention” as recited in claims 1 and 19 because the proposed combination fails the “all the claim limitations” standard required under § 103.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 and 19 are patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication for which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner’s

amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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